

*Aster novae-angliae*, *Asclepias tuberosa*, and *Helianthus grosse-serratus*. None of these species was flourishing as well as did other individuals growing in open ground, but all were perhaps twice as tall as during an ordinary season and much more robust than usual. A plant of the moisture-loving *Chelone glabra*, which had for some years barely kept alive, grew luxuriantly and flowered freely.

On the other hand, the rather xerophytic *Sedum telephioides* and *Hedera Helix* showed no better growth than usual, and some other plants, such as *Saponaria officinalis* and *Oxalis corniculata*, showed little increase over their usual size. It would seem that the invariable dwarfing in ordinary seasons of the *Aster*, *Asclepias*, and *Helianthus* previously mentioned must be due mainly to abstraction of moisture from the soil by the roots of the trees. Doubtless many plants of agricultural importance are as sensitive to the effect of diminished water supply as are these three species.—J. Y. BERGEN, *Cambridge, Mass.*

### STAMINATE FLOWERS IN ANEMONE

*Anemone caroliniana* is one of the most common of spring flowers in the vicinity of Grand Island, Nebraska. For several years I have noticed that in a large number of the flowers the pistils are lacking. In 1914 in one collection of 250 specimens, 190 were perfect, 50 had stamens only, and 10 had few or abortive pistils. There were none that had pistils only. The condition found is indicated in table I.

TABLE I

	STAMENS			PISTILS		
	Minimum	Maximum	Average	Minimum	Maximum	Average
190 normal flowers.	20	45	28	25	60	35
50 staminate flowers.....	7	55	28	.....	.....	.....
10 with few pistils .	10	52	40	10	20	16

In 1915 a collection of 133 specimens contained 55 staminate and 78 perfect flowers. A bouquet of especially fine large anemones was also examined. It contained 48 specimens, 46 of which were perfect, and in only 2 of which pistils were lacking. The average number of stamens

in these was 86, the minimum and maximum being 72 and 100. The average number of pistils was 116, the minimum and maximum being 108 and 125. The fact that in these larger and more luxuriant plants the flowers were nearly all perfect and had a large number of both stamens and pistils would suggest that the absence of pistils is due to their degeneration through disease or some other cause; and the case of the 10 flowers with few pistils and an average of 40 stamens would suggest that pistils may be replaced by stamens. There was nothing in the vegetative parts of any of these plants to indicate disease.—CLARENCE J. ELMORE, *Grand Island College, Neb.*